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Binder

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(54) **SYSTEM AND METHOD FOR CONTROL BASED ON FACE OR HAND GESTURE DETECTION**

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(52) **U.S. Cl.**
USPC **345/158**

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See application file for complete search history.

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(57) **ABSTRACT**

System and method for control using face detection or hand gesture detection algorithms in a captured image. Based on the existence of a detected human face or a hand gesture in an image captured by a digital camera (still or video), a control signal is generated and provided to a device. The control may provide power or disconnect power supply to the device (or part of the device circuits). Further, the location of the detected face in the image may be used to rotate a display screen horizontally, vertically or both, to achieve a better line of sight with a viewing person. If two or more faces are detected, the average location is calculated and used for line of sight correction. A linear feedback control loop is implemented wherein detected face deviation from the optimum is the error to be corrected by rotating the display to the required angular position. A hand gesture detection can be used as a replacement to a remote control wherein the various hand gestures control the various function of the controlled unit, such as a television set.

34 Claims, 59 Drawing Sheets